

ARTICLE WITH WATER-AND OIL-REPELLENT FILM AND FORMING METHOD THEREOF

Publication number: JP10146920 (A)

Also published as:

Publication date: 1998-06-02

JP3017965 (B2)

Inventor(s): OGAWA KAZUFUMI

Applicant(s): MATSUSHITA ELECTRIC IND CO LTD

Classification:

- international: B32B17/10; B32B27/00; B32B27/30; B32B37/00; C03C17/42; C09K3/18; B32B17/06; B32B27/00; B32B27/39; B32B37/00; C03C17/42; C09K3/18; (IPC1-7): B32B17/10; B32B27/00; B32B27/30; B32B37/00; C03C17/42; C09K3/18

- European: Y01N6/00

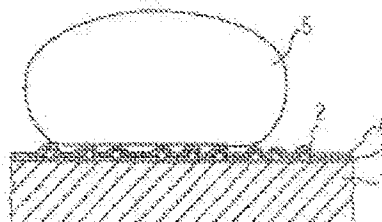
Application number: JP19970295058 19971028

Priority number(s): JP19970295058 19971028; JP19910024024 19910123

Abstract of JP 10146920 (A)

PROBLEM TO BE SOLVED: To provide a highly water- and oil-repellent molecular membrane coated article by a method wherein an uneven layer prepared by mixing finely divided particles and a silicate glass is provided on the surface of a glass base and, in addition, a water- and oil-repellent film consisting of a fluorocarbon group and siloxane group-containing polymer layer or single molecular layer is chemically bonded onto the above-mentioned layer through a siloxane bond.

SOLUTION: By coating finely divided particles 2 and silicate glass on the surface of a glass base 1, a rough surface consisting of a layer 3 having a submicron-micron order unevenness is formed. By thinly coating fluorine-based surface active agent such as $\text{CF}_3\text{CH}_2\text{O(CH}_2)_n\text{SiCl}_3$ or the like together with nonaqueous solvent, a dehydrochlorination reaction is conducted; Next, by removing excess surface active agent, fluorine group containing molecules are bonded to the glass base and/or the surface of the finely divided particles, resulting in obtaining a film 4 excellent in water- and oil-repellency and improving the water repellency to the water 5.



Data supplied from the esp@cenet database — Worldwide